

REMARKS

Claims 1-22 are currently pending in the application. By this amendment, claims 6, 9, 10, 15 and 20 are amended and claim 22 is added for the Examiner's consideration. Support for the added claim is found in at least Figures 1 and 3 and the description at page 6 of the specification. No new matter is added. Reconsideration of the rejected claims in view of the above amendments and the following remarks is respectfully requested.

Allowed Claims

Applicants appreciate the indication that claims 13, 14 and 16 are allowed. Applicants further submit that claims 6, 7, 9, 10, 15 and 17-21 also contain allowable subject matter once the §§112, 1st and 2nd paragraph rejections are overcome. Applicants base this on the fact that these claims are not rejected based on any prior art references. To this end, Applicants submit that the §§112, 1st and 2nd paragraph rejections are overcome in view of the below remarks, and accordingly claims 6, 7, 9, 10-12, 15 and 17-21 should now be in allowable form.

Applicants also respectfully submit that remaining claims are allowable in view of the above amendments and the following remarks.

§112, 2nd Paragraph Rejection

Claims 1-10, 15 and 17-20 were rejected under 35 U.S.C. §112, 2nd paragraph. This rejection is partially traversed.

Applicants have amended claims 9 and 10 in order to provide proper antecedent basis to "the stacks". The stacks may refer to any stacks, whether in the center or side compartments. Applicants submit that this amendment is made strictly for clarity purposes and not for reasons of patentability. For example, claim 1 already recited stacked products in the last clause.

Claim 15 has been amended to provide proper antecedent basis to "the information...". Claim 15 has additionally been amended to delete the phrase "are designed to", as suggested by the Examiner.

However, Applicants disagree with the Examiner's remarks concerning claims 1-10 and 17-20; that is, these claims do not omit essential elements. In particular, the Examiner is of the opinion that the use of an "optical edge recognition system" (claims 1-10), and the phrase "bound" edges (claims 17-20) are essential to the practice of the invention and that these steps are omitted from the claimed inventions. Applicants disagree with the Examiner in that these are not essential steps or elements for practicing the invention.

As previously submitted and attested to in the affidavit under 37 C.F.R. §1.132 of expert, Mr. Michael Wisniewski, the optical character recognition system (albeit novel in combination with other features) is not required by the claimed invention to work in its intended manner. That is, the optical recognition is not a critical limitation. As discussed previously, the system and method may equally work well using, for example, a known count of the product stacked in a certain orientation. Applicants also submit that this system and method can work with the use of an operator determining the orientation of the edges. Accordingly, the use of an optical system is not essential to the practicing of the invention.

As to claim 17, again, Applicants respectfully submit that the recitation of "bound" edges is not necessary. As discussed in the §1.132 affidavit, the system and method of the invention can be used for orientation based on any feature. These features can be on any edge of the product such as address or other information. Thus, the use of bound is not required. Typically, though, the system is used for distinguishing bound and non bound edges of the product.

The Examiner is also of the opinion that the detecting step of claim 20 is indefinite based on the phrase "a difference in thickness between the edges". Applicants respectfully submit, however, that this claim language is definite. That is, the difference in thickness is not a "measurement of length", but is used in its ordinary and customary manner. By way of specific example, "thickness" is defined as:

1. The smallest of three dimensions (length, width, ~) 2:
the quality of being thick

See, Merriam Webster's Collegiate Dictionary, 10th edition.

As to which edges are being measured, Applicants submit that it can be any of the edges, depending on the orientation of the product in the compartments. Thus, the edges can be the bound edges or the non bound edges. In either situation, the invention will be able distinguish between the edges to provide a homogeneous orientation of the product.

Accordingly, Applicants respectfully request that the rejection over claims 1-10, 15 and 17-20 be withdrawn.

§112, 1st Paragraph Rejection

Claims 6 and 7 were rejected under 35 U.S.C. §112, 1st paragraph. Claim 6 is amended to recite the use of two belt drives. This feature of two belt drives is shown in Figure 4, for example.

Accordingly, Applicants respectfully request that the rejection over claims 6 and 7 be withdrawn.

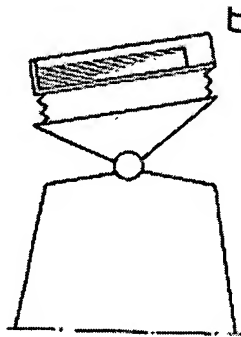
§102(b) Rejection

Claims 1-5, 8, 11 and 12 were rejected under 35 U.S.C. §102(b) over Borchert et al. This rejection is respectfully traversed.

The invention is directed to a flat edge biasing machine. The flat edge biasing machine includes three separate compartments, including a central compartment and opposing side compartments. The compartments are separated by opposing moveable guide walls positioned between the compartments. The moveable guide walls provide flexibility to the system, e.g., allow for different sized compartments. The side compartments are used to stack product in homogenous orientations. Moveable plates or paddles are positioned within each of the compartments and are used to bring the product, in one case, towards the transporting mechanism. As shown by the arrows in Figure 1, for example, in one embodiment, the central moveable plate is moveable in a first direction (toward the transporting mechanism) and the side moveable plates are moveable in a second direction.

Applicants submit that the Borchert reference does not show all of the features of the claimed invention. First, the Borchert reference is directed to -*moving interleaving papers away from printed papers during a printing process. This is not even remotely related to a flat biasing machine. In any event, the Examiner is of the opinion that the Borchert reference shows separate compartments in Figure 1. However, after careful review, Applicants do not note any separate compartments in the Borchert device. Applicants are of the opinion that only one compartment is shown; that is, Borchert shows a central compartment 1.

Applicants do note, though, that Borchert shows two side areas which show paper trays. These holders, e.g., paper trays, are for holding separated papers, but these clearly are not compartments as recited in the claimed invention. At best, these would be plates or trays, only, for holding the paper, as evidenced by the configuration of these trays. More specifically, as shown in the reproduced Figure 1 below, the trays include a side edge which would hold the papers within the tray, itself.



Accordingly, Applicants submit that these holding trays are not separate compartments, and are only holding trays.

Also, the Examiner is of the opinion that column 2, lines 1+ describe different compartments. However, Applicants submit that column 2, lines 1+ do not describe different compartments. Instead, these passages disclose the use of independently controlled elevators 4

and 5, with the use of sensors and intervening springs 8. Nowhere is there any disclosure of the use of different compartments, though.

Additionally, the Examiner is of the opinion that the Borchert reference shows moveable plates. To support this contention, the Examiner concludes that the plates "are supported on springs and are moveable." However, the Examiner does not provide any support for this conclusion, either by way of the specification or the Figures. To this end, Applicants again disagree with the Examiner's argument. After careful review of the disclosure of Borchert, Applicants do not note anything that would resemble, even remotely, the use of a spring associated with the plates. Instead, the center plate is moved by independent elevators. The only disclosure of springs is that of the springs 8 which are designed to

... engage into lateral recesses of the interleaving sheet on the side towards which the same is pulled off. These springs 8 retain the printed sheet under the interleaving sheet during the removal of the latter.

See, col. 2, lines 15-20.

This feature is important to the Borchert device since the printed sheets and the interleaving sheet have a tendency to adhere to one another.

Applicants also are of the opinion that the use of the invention for orientating the product in a homogenous manner would be a limitation that should be considered in the examination of these claims. This limitation is not an intended use since it is not an optional use, in accordance with MPEP §2106. Thus, this feature should be given patentable weight. To this end, and as discussed above, the Borchert reference does not show such a feature. Instead, Borchert is directed to sorting interleaved and printed paper from one another.

As to the dependent claims, Applicants submit that Borchert does not show moveable walls separating each of the plurality of compartments. The moveable walls of the invention, as discussed above, allow flexibility of the system to adjust the sizes of the compartments. This feature simply is not shown in the Borchert reference. Borchert does not show separate

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compartments and would thus not show walls to separate that which is not required or disclosed in the reference.

Also, Borchert does not show an edge recognition system. Instead, Borchert shows the use of scanners used to distinguish between an interleave sheet and a printed sheet by brightness. This is clearly different than an edge detection system. In fact, it is Applicants' contention that Borchert would not even contemplate such an edge recognition system since this reference is strictly directed to separating interleave sheets from printed sheets (where the entire device is premised on the need to have interleave sheets so that ink will not transfer between the printed sheets).

Accordingly, Applicants respectfully request that the rejection over claims 1-5, 8, 11 and 12 be withdrawn.

Added Claims

Claim 22 is added for the Examiner's consideration. The features of added claim 22 are not shown in the Borchert reference and are thus distinguishable.

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CONCLUSION

In view of the foregoing amendments and remarks, Applicants submits that all of the rejections are overcome. The Examiner is respectfully requested to pass the above application to issue. The Examiner is invited to contact the undersigned at the telephone number listed below, if needed.

Respectfully submitted,

A handwritten signature in black ink, consisting of several overlapping loops and a long horizontal stroke at the end.

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